March 31, 1942. J. MATYS 2,278,112

HAIR DRYING APPLIANCE

Original Filed April 29, 1937

Fig. 1.

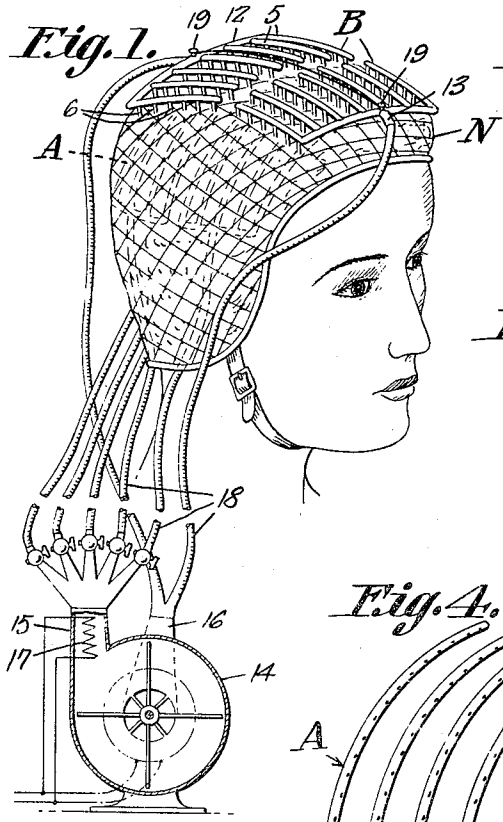


Fig. 2.

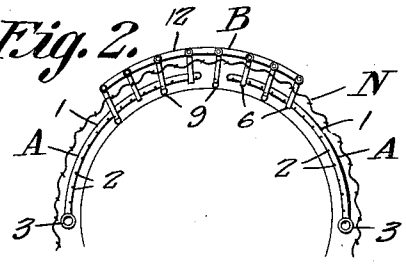


Fig. 3.

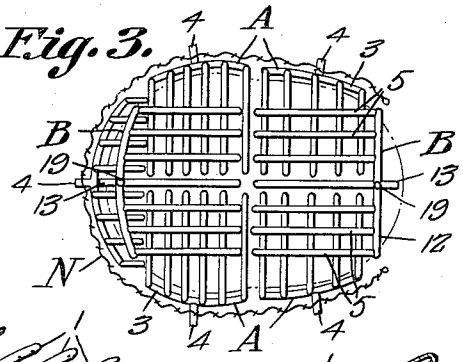


Fig. 4.

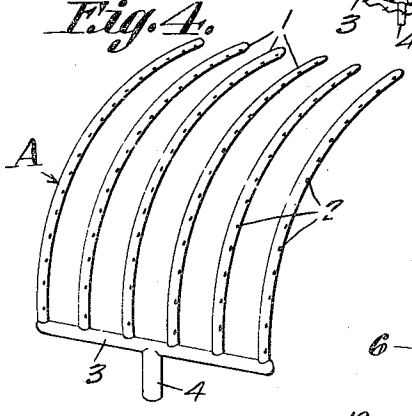


Fig. 5.



Fig. 6.

Fig. 10.

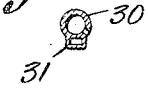


Fig. 7.

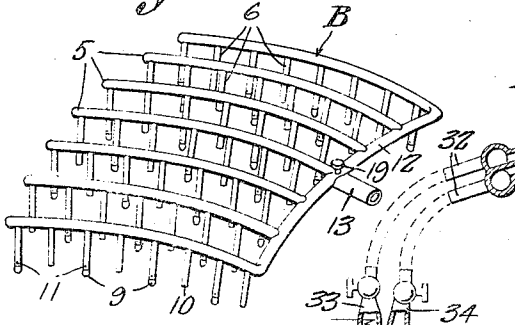


Fig. 9.



Fig. 8.

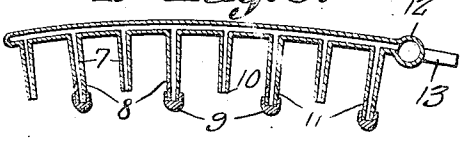
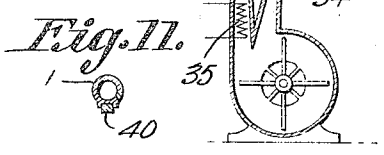


Fig. 11.



Joseph Matys INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

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UNITED STATES PATENT OFFICE

2,278,112

HAIR DRYING APPLIANCE

Joseph Matys, Southbridge, Mass.

Original application April 29, 1937, Serial No. 139,785. Divided and this application November 25, 1940, Serial No. 367,112

9 Claims. (Cl. 34—100)

My invention relates to hair drying applicances or devices and constitutes a division of my application Serial No. 139,785, filed April 29, 1937 issued as Patent No. 2,224,876.

One of the principal objects of my invention is to provide a hair drying appliance or device wherein, through the utilization of my invention, the hair upon the head of a person, after being waved or curled, may be quickly and easily dried without disturbing the strands of the hair after the same is set and particularly where a net is worn for maintaining the hair in set position.

Another object of my invention is to provide a device of the above described character wherein the units employed for the hair drying are so constructed and arranged whereby to avoid injury to the scalp of the person should the appliance become unduly heated.

A further object of my invention is to provide a device of the above described character which is simple in construction, thoroughly reliable and efficacious in operation, readily and easily handled, and which tends to eliminate discomfort to the person during the hair drying operation.

Other objects and advantages will be apparent from the following description, appended claims and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a perspective view of my invention as applied to the head of a person having received hair waving treatment.

Figure 2 is a diagrammatic elevation illustrating the relationship of the frames when disposed upon the head of the person.

Figure 3 is a diagrammatic top plan view illustrating the arrangement of the frames with respect to each other when disposed upon the head of the person.

Figure 4 is a perspective view of one of the frames.

Figure 5 is a longitudinal sectional view through one of the tines of the frame illustrated in Figure 4.

Figure 6 is a detail sectional view taken on the line 6—6 of Figure 5.

Figure 7 is a perspective view of another frame.

Figure 8 is a longitudinal sectional view through one of the tines of the frame illustrated in Figure 7.

Figure 9 is a side elevation, partly in section, of a modified form of the frame illustrated in Figure 4.

Figure 10 is a sectional view taken on the line 10—10 of Figure 9.

Figure 11 is a view similar to Figure 10 but illustrating a modified form of tine.

In practicing my invention, as illustrated in Figures 1 to 8 inclusive of the drawing, I provide a plurality of pectiniform frames A and B, said frames being adapted for application to the head of a person in the manner substantially disclosed in Figures 1 to 3 of the drawing. The frames A constitute inner units and each frame is fashioned with spaced hollow tines 1, the latter being profusely perforated as at 2. Each of the frames A is also fashioned with a conduit 3 communicating with the tines 1 and provided between its ends with a communicating coupling 4 which extends in an opposite direction with respect to the tines.

The frames B constitute outer units and each frame B is fashioned with spaced hollow tines 5 with each of said tines provided with spaced nozzles or nipples 6 angularly related to the respective tines and extending through the hair and terminating proximous the scalp. The nozzles 6 are formed with lengthwise extending bores 7 communicating with the bores of the respective tines and the lower ends 8 of the alternate tines are provided with insulating means or rubber tips 9 closing the bores thereof and protecting the scalp from injury or discomfort by the ends of the nozzles.

The tips 9 are adapted for engagement with the scalp to maintain the ends 10 of the adjacent nozzles slightly spaced from the scalp, it being understood that the ends 10 of the adjacent nozzles are open while the ends 8 of the other nozzles are formed with lateral ports 11 superjacent said tips 9.

Each frame B is also fashioned with a conduit 12 communicating with the tines and provided between its ends with a communicating coupling 13 which extends in an opposite direction with respect to the tines.

As diagrammatically illustrated in Figure 1 of the drawing, I provide a blower 14 having outlet and inlet connections 15 and 16 respectively with the outlet connection 15 interiorly fitted with an electric heating coil 17 for warming or heating air discharged therethrough. The couplings 4 and 13 of the frames are connected to the outlet and inlet connections 15 and 16 respectively of the blower by means of hose 18 whereby, upon operation of the blower, heated air is supplied to the tines 1 through the conduit 3 and air is withdrawn from the nozzles 6 through the tines

5 and conduit 12. The couplings 4 and 13 of the frames are each provided with a valve 19 for controlling the air passing through said couplings whereby a greater quantity of heated air may be supplied to the tines 1 for drying the hair than the amount of air withdrawn through the nozzles 6 or vice versa. While I have described and illustrated the frames A and B as connected to the outlet and inlet connections 15 and 16 of the blower, it is to be understood that the same may be connected in reverse order in order to supply the frames A with heated air and withdraw the air through the frames B if desired.

In use, the frames A are inserted within previously treated and waved hair with the tines 1 arranged adjacent the scalp whereupon a net N is applied over the hair to hold the same in a fixed condition during setting thereof as is customary in hair waving treatments. When the frames A and net N are thus arranged, the frames B are disposed upon the hair with their nozzles 6 extending therethrough and between the tines 1 whereupon the blower is operated to supply heated air to the tines 1 and to withdraw air through the nozzles 6, the supplying and withdrawing of the air to and from the tines being simultaneous. Due to the nozzles 6 being disposed in pairwise or alternate correlation with the tines 1, heated air is circulated between the nozzles 6 and tines 1 adjacent the scalp, thus effecting a drying of the hair without disturbing the same while in set condition. The insulating means or tips 9 carried by the nozzles 6 also serve to space the nozzles from the scalp to preclude injury of the scalp from the heat of the nozzles due to hot air being circulated therethrough.

In Figures 9 and 10 of the drawing there is illustrated a modified form of one of the frames A wherein each tine is constructed with a pair of upper and lower bored sections 30 and 31 respectively. The bores of the sections 30 and 31 are connected to and in communication with a pair of leads 32 extending from double outlets 33 and 34 respectively.

The outlet 33 is fitted with an electric heating unit 35 while the outlet 34 is devoid of said unit. Therefore, the section 30 will discharge heated air while the section 31 will discharge cold or unheated air. The section 31 is adapted to be inserted within the hair next to the scalp to protect the latter from engagement with the section 30 which may become unduly heated and tend to injure the scalp.

In Figure 11 of the drawing, there is illustrated a modification of one of the frames A wherein each tine 1 has fitted thereto insulating means or a strip coextending therewith and on the side thereof adjacent the scalp to isolate the tine from the scalp to preclude injury thereto due to the heated condition of the tine when heated air is circulated therethrough.

Without further elaboration, the foregoing will so fully explain the invention that others may, by applying current knowledge, readily adapt the same for use under various conditions of service. Moreover, it is not indispensable that all the features of the invention be used conjointly since they may be employed advantageously in various combinations and subcombinations.

It is obvious that the invention is not confined to the herein described use therefor as it may be utilized for any purpose to which it is adaptable. It is therefore to be understood that the invention is not limited to the specific construction as illustrated and described as the same is only illustrative of the principles of operation which are capable of extended application in various forms, and that the invention comprehends all construction within the scope of the appended claims.

What I claim is:

1. An appliance of the character described, comprising, a pair of pectiniform frames with one of said frames adapted to be inserted into the hair adjacent the scalp and fashioned with perforated hollow tines and a conduit communicating with said tines, said other frame adapted to be disposed over the hair and said first defined frame and fashioned with hollow tines and a conduit communicating with said last mentioned tines, said other frame provided with nozzles communicating with tines and extending between the tines of said first mentioned frame, and means having communicative connection with the said frames operable to supply heated air to the tines of one of the said frames and to create suction for withdrawing air through the tines of the other of the said frames.

2. An appliance of the character described, comprising, a pair of pectiniform frames with one of said frames adapted to be inserted into the hair adjacent the scalp and fashioned with perforated hollow tines and a conduit communicating with said tines, said other frame adapted to be disposed over the hair and said first defined frame and fashioned with hollow tines and a conduit communicating with said last mentioned tines, said last mentioned tines provided with nozzles and with the latter arranged alternately with respect to the first mentioned tines, and means having communicative connection with the said frames operable to supply heated air to the tines of one of the said frames and to create suction for withdrawing air through the tines of the other of the said frames.

3. An appliance of the character described, comprising, a pair of pectiniform frames with one of said frames adapted to be inserted into the hair adjacent the scalp and fashioned with perforated hollow tines, said other frame adapted to be disposed over the hair and said first defined frame and fashioned with hollow tines, said last mentioned tines provided with nozzles and with the latter arranged interpositioned with respect to the first mentioned tines, independent conduits communicating with the tines of said frames respectively, and blower means connected with the said frames for forcing air outwardly of the perforations of the tines adjacent the scalp and to create suction for withdrawing air through the said nozzles.

4. An appliance of the character described, comprising, a pair of pectiniform frames with one of said frames adapted to be inserted into the hair adjacent the scalp and fashioned with perforated hollow tines, said other frame adapted to be disposed over the hair and said first defined frame and fashioned with hollow tines, said last mentioned tines provided with nozzles and with the latter arranged in pairwise correlation with the first mentioned tines, and conduits communicating with said frames respectively, and means having communicative connection with the said frames operable to supply heated air to the tines of one of the said frames and to create suction for withdrawing air through the tines of the other of the said frames.

5. The structure of claim 1 as set forth and defined therein including, said first mentioned

tines and said nozzles provided with means for insulating said first mentioned tines and said nozzles from the scalp.

6. The structure of claim 2 as set forth and defined therein including, said first mentioned tines and said nozzles provided with means for insulating said first mentioned tines and said nozzles from the scalp.

7. The structure of claim 3 as set forth and defined therein including, said first mentioned tines and said nozzles provided with means for insulating said first mentioned tines and said nozzles from the scalp.

8. The structure of claim 4 as set forth and defined therein including, said first mentioned tines and said nozzles provided with means for insulating said first mentioned tines and said nozzles from the scalp.

9. In a hair drying appliance, a frame having a plurality of tubular conduits, the said conduits being shaped to conform to the head and provided with apertures at the inner side, a second frame having a plurality of conduits adapted to extend over and across the conduits of the first frame, a plurality of nozzles connected to and extending inwardly from the conduit of the outer frame, and means connected with the first mentioned inner frame for forcing heated air through the apertures therein and for creating suction to withdraw air through the nozzles of the outer frame.

JOSEPH MATYS.